## SPECIAL FORECASTS AND WARNINGS-WEATHER AND CROPS.

## WEATHER WARNINGS.

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[Dated: Weather Bureau, Washington, July 17, 1919.]

Cyclonic activity was quite feeble during the month, and but a single storm warning was necessary. During the last week a trough of moderately low pressure drifted slowly across the country, and on the morning of the 28th, it extended from the North Carolina coast northeastward over the ocean to Newfoundland. High pressure and low temperature followed from the northwest, with the crest of the wave over Ontario on the date mentioned. Northeast storm warnings were therefore ordered along the Atlantic coast from Norfolk, Va., to Nantucket, Mass., for strong northeast winds on the immediate coast and gales at sea. The winds occurred as forecast within the ensuing twenty-four hours.

Small-craft warnings were also ordered on June 10 for western Lake Superior, and on June 25 for Lake Erie

from Cleveland to Buffalo.

## WARNINGS FROM OTHER DISTRICTS.

Chicago, Ill., Forecast District.—No frost warnings were issued for any portion of the district after the 3d. On the 1st frost, or freezing temperature, was predicted for Wyoming and the warning was fully verified. Frost warnings were issued for the lowlands of Minnesota and the cranberry bogs of Wisconsin on the 2d, and for northwestern Nebraska and southeastern Wyoming on the following day; however, cloudiness prevented frost formation.—Charles L. Mitchell.

New Orleans, La., Forecast District.—Northeast storm warnings were ordered on the 14th at 9 p. m. for the Texas coast from Velasco to Port Arthur, and small craft warnings on the 16th for the same territory. Sub-

sequent conditions justified the display.

No general storm occurred without warning.

An area of high pressure over the eastern Rocky Mountain region and the Plateau States, with record low temperatures on the morning of the 2d, indicated frost for Oklahoma and northwestern Texas, and warnings were issued for that area. Temperatures on the morning of June 3 were 44° to 50° in Oklahoma and northwestern Texas.—I. M. Cline.

Denver, Colo., forecast district.—The anticyclone that appeared in Oregon on May 31 resulted in record-breaking low temperatures in Colorado and heavy frost or freezing temperature in parts of New Mexico, Arizona, and Utah on June 1. Several stations in Colorado reported the lowest temperatures of record for June. These conditions were fully covered by the warnings issued by the district forecaster on May 31. The anticyclone spread eastward over the northern portions of the Plateau and Rocky Mountain regions, necessitating warnings on the morning of June 1 for continued cold weather, with frosts, in Colorado, northern New Mexico, northern Arizona, and Utah. Freezing temperatures again occurred in Colorado and northern

New Mexico and frost temperatures in northern Arizona and Utah. The damage from frost on the 1st and 2d was variable; in a few localities the freeze was destructive to some important crops; in general, however, frosted crops revived, although their growth was retarded. Frost warnings were repeated for Colorado and high districts in Utah on June 3, as the crest of the anticyclone was still in the Rocky Mountain region. Frost temperatures occurred in the areas indicated. No other frost warnings were issued, except on one date for high districts in Utah.

Moderately low pressure and unusually warm and dry weather prevailed generally during the remainder of the month, except in parts of New Mexico, where summer rains occurred earlier than usual. Drought resulted in portions of Colorado and Utah, followed by a shortage

of water for irrigation.

Fire-weather warnings were issued for large areas in the district on the 10th, and during the closing days of the month, when the prevailing hot and dry weather had rendered the forested areas unusually susceptible to the spread of fires. The warnings were fully justified, strong winds being reported in various localities in the area embraced by the warnings.—Frederick W. Brist.

San Francisco, Calif., forecast district.—No well-developed highs or lows passed across the district during the month of June. Pressure distribution followed the usual summer type and consisted of relatively high barometric readings along the north Pacific coast and relatively low readings over the Plateau States. A good part of the time a large high pressure area over the Atlantic States blocked the eastward passage of the "heat" lows forming over the Plateau States, and in consequence temperatures in this district averaged nearly normal, except in southeastern Idaho and southern Nevada, where it was slightly warmer than usual. Local rains fell on several days in western Oregon, western Washington, and extreme northwestern California. None of consequence fell elsewhere.

Frost warnings were issued on the 10th, 11th, 14th, and 17th for portions of the North Pacific States and they were generally verified. Fire-weather warnings were issued for northern California on the 3d and 23d, which also were verified. During the last decade the forests dried very rapidly and many of them had reached the state where fires could easily occur, and, had there been even moderately high winds, would have spread to an alarming extent. Foreseeing on the 26th that lower temperatures would occur in Idaho and that showers were liable to fall in the mountains, a warning to this effect was sent to the forest people in Idaho and northern Nevada. Within the next 24 to 36 hours much cooler weather prevailed, which undoubtedly greatly lessened the fire hazard in the localities where the warnings were

distributed.—E. A. Beals.